INDEX OF AUTHORS

Volume 17

July 1956 • December 1956

Journal of the National Cancer Institute

Page numbers in italics indicate senior authorship

Albright, John T., 329
Algire, Glenn H., 23
Allam, M. W., *123*
Andervont, Howard B., *481*

Bacon, Martha O., 189
Barrett, Morris K., *497*
Barvick, Louis, 65
Beard, D., 91
Beard, J. W., 91
Beaudreau, G. S., *91*
Belkin, Morris, 1, 421
Bittner, John J., 139
Bonar, R. A., 91
Burstein, Shlomo, 213
Burstone, M. S., *49*

Cashman, Rita E., 155
Cobb, Jewel Plummer, *657*
Cole, Leonard J., *435*

Day, Eugene D., *517*
Deane, Helen Wendler, *541*
Deringer, Margaret K., 497, *533*, 639
Dreisbach, M. E., *297*
Dunn, Thelma B., *639*
Dyer, Helen M., *677*

Earle, W. R., 131
Edgcomb, John H., 481
Ellis, Marie E., 435
Essner, Edward, 1, 421
Evans, V. J., 131

Fawcett, Don W., 541
Ferrigno, M., 601
Forssberg, Arne, 37
Foulds, L., *701*, *713*, *755*, *783*

Gardiner, Verna, 175
Gardner, W. U., *601*
Gerhardt, Paul R., 155
Gilliam, Alexander G., 77, 475
Goldberg, Irving D., *155*
Goldin, Abraham, *203*, 447, 631
Greco, Antoinette E., 503
Greer, Monte A., 569

Haas, Victor H., 221, 233
Halberg, Franz, *139*
Handy, Vincent H., 155
Hansen, Walter H., 497
Harvald, B., *289*
Hauge, M., 289
Hawkins, Naomi M., 131
Heston, Walter E., 639
Higginson, J., 281
Hoffman, Joseph G., *175*
Humphreys, Stewart R., 203, *447*, 631

Klein, George, 37
Korngold, Leonhard, 517
Kosak, Alvin I., *375*

Law, L. W., 391
Leiter, J., 145
Levin, Morton L., 155
Lombard, L. S., 123
Loomis, L. N., *101*

McCarter, J. A., *399*, *405*
Main, Joan M., 35
Mantel, Nathan, 203, 447, 631
Maver, Mary E., *503*
Merwin, Ruth M., *23*
Metropolis, Nicholas, 175
Mickelson, M. N., *65*
Morris, Harold P., 345, 363, 677

Nadel, Eli M., *213*, *221*
Nowell, Peter C., 435

Oettlé, A. G., *249*, *281*

Peppers, Ellison V., 131
Planinsek, Jakob, 517
Powers, O. H., 145
Pratt, A. W., 101
Prehn, Richmond T., *35*
Pressman, David, 517

Reid, James C., *189*
Révész, László, *37*

Salsbury, Clarence G., 77
Sato, Haruo, *1*, *421*
Schneider, Walter A., III (Nov.)
Shacter, Bernard, *391*
Shirer, J. F., 123
Siperstein, Eleanor R., *569*
Smith, Robert Lincoln, 77, *459*, *667*
Snell, G. D., 297
Sober, Herbert A., 363
Sognnaes, Reidar F., *329*
Speirs, R. S., 297
Stewart, Sarah E., *233*
Stubbs, E. L., 123
Swinehart, James S., 375
Szerb, J. C., 405

Taber, David, 375
Temmer, Odette S., 189
Thompson, G. E., 405

Venditti, John M., 203, 447, *631*
Vermund, Halvor, 139

Walter, William A., *475*
Waravdekar, V. S., *145*
Waymouth, Charity, *305*, *315*
Weisberger, David, 329
Weisburger, Elizabeth K., 345, 363
Weisburger, John H., *345*, *363*
Westfall, B. B., *131*
Woods, Mark, *615*

INDEX OF SUBJECTS

Volume 17

July 1956 • December 1956

Journal of the National Cancer Institute

Acetylpodophyllotoxin-ω-pyridinium chloride, effect on enzyme changes in tumors, 145
Adrenal cyclic function, study of, and eosinophil rhythm in mammary carcinoma-bearing mice, 139
Amethopterin, effect on:
  advanced mouse leukemia (L1210)
    cell variant of, in presence of infectious agent, 447
    combined treatment of, with 6-mercaptopurine, 631
    modified treatment schedules in management of, 203
  tumor growth and liver glutathione in mice bearing lymphocytic leukemias, 391
Amino acid(s): *see also* Glutamine, Histidine
  composition of sarcoma 180 and normal mouse tissue, 65
  metabolism in normal and hepatoma-bearing rats, 189
o-Aminoazotoluene: *see* 4-*o*-Tolylazo-*o*-toluidine
Announcements:
  Application for research grants, 699
  International Symposium on Mammary Cancer, 815
  Medical research fellowships, II (Oct.)
  Research and personnel grants, 699
  Seventh International Cancer Congress, 247
Antibodies: *see also* Technique
  against Murphy rat lymphosarcoma, cross-localization of in tumor and normal tissues, 517
Antigen(s), iso- , local cellular response to, 297
Antimetabolite(s), management of advanced mouse leukemia (L1210) by folic acid antagonist, 203
Ascites tumor(s): *see also* Ehrlich ascites, Krebs-2, Leukemias
  conversion from solid form of mouse hepatomas, 1
  Nitromin, effect on mitosis and cytoplasmic volume in cells of mouse hepatoma and sarcoma, 421
Avian erythroblastosis: *see* Virus

Bantu population of Southern Africa:
  incidence of liver carcinoma in, 249–287
    review of literature on, 249
    urban area, Johannesburg, 281
Breast tumor: *see* Mammary tumor

Cancer:
  genetic relation of glioblastoma to other types of, 289
  mortality, recorded and expected, among
    Chinese of Hawaii and U. S., 667
    Japanese of Hawaii and U. S., 459
    Navajo Indians, 77
  probability of developing, based on morbidity data, 155
  South African Bantu, incidence in, 249, 281

Carcinogen(s): *see* Dimethylbenzanthracene, *N,N*-Dimethy-*p*-phenylazoaniline, *N*-2-Fluorenylacetamide, Methylcholanthrene, Nitromin, 4-*o*-Tolylazo-*o*-toluidine (*o*-aminoazotoluene)
Carcinogenesis: *see also* names and types of tumors
epidermal, of mouse, control of some factors of dosage in, 399, 405
skin tumors, 3-methylcholanthrene-induced, susceptibility of inbred mouse strains to, 481
Carcinoma(s): *see* Hepatoma, Krebs-2, Mammary, Thyroid
liver, incidence of in South African Bantu, 249, 281
thyroid, canine, transplantation of in mixed-breed puppies, 123
Cell(s): *see also* Tissue culture
ascites-tumor, labeled, growth curves and metabolic stability of deoxypentose nucleic acid in, 37
local response of, to isoantigens, 297
multiplication of, studied by Monte Carlo methods with digital computer, 175
variant of L1210 leukemia, association with infectious agent and dependence on amethopterin, 447
Chemotherapy:
implications of amino-acid composition of tumors for, 65
of mouse leukemia L1210
management with amethopterin, 203
single and combined administration of amethopterin and 6-mercaptopurine, 631
Chicken tumor I: *see* Virus, Rous sarcoma
Chinese: *see* Statistics
Choriomeningitis virus, lymphocytic: *see* Virus
Chromatography: *see* Technique
Cigarette smoke, components of, preliminary chemical studies on, 375
Compounds: *see* names of
Corticosteroids, urinary excretion of, in tumor-bearing guinea pigs, 213

Deoxypentose nucleic acid, metabolic stability of, 37
Deoxyribonuclease from normal and neoplastic tissue, purification and properties of, 503
Desquamation, pathologic, of oral epithelium, examined by electron microscopy and histochemistry, 329
Digital computer studies: *see* Technique
9,10-Dimethyl-1,2-benzanthracene, single application in induction of mouse skin tumors, 405
2,4-Dinitrophenol, effect on respiration *in vitro* of normal and neoplastic tissue, 615

Ehrlich ascites tumor, labeled cells of, in study of growth curves and metabolic stability of deoxypentose nucleic acid, 37
Enzyme(s):
changes in tumors, by chemical agents, 145
deoxyribonuclease and ribonuclease, purification and properties of, 503
Eosinophil rhythm in mammary carcinoma-bearing mice, 139
Epithelium, oral, pathologic desquamation of, in human being, 329
Estrogen(s), development of lesions of uterine horns in mice treated with, 601
Eye, anterior chamber of, implantation of whole mouse pituitary in, 569

Fibrosarcomas, subcutaneous, incidence and histology of, in mice, 639
N-2-Fluorenylacetamide:
protein binding of, 677
urinary metabolites of, excreted by rats following ingestion of, 345,363
Freeze-drying: *see* Technique

Genetics:
glioblastoma, in man, role of heredity in, 289
reciprocal hybrids, influence of differences between, upon tumor transplantation and growth, 497
Glands: *see* names of
Glioblastoma, in man, influence of heredity on and genetic relation to other types of cancer, 289
Glutamine, effect on *in vitro* growth and metabolism of liver cells, 131
Glutathione levels of liver in leukemic mice, effect of amethopterin on, 391
Grafts:
skin, isologous, influence of sex on, in mice, 35
vascularization of, role of graft and host vessel in, 23

Hemangioendotheliomas in HR mice, effect of 4-*o*-tolylazo-*o*-toluidine on incidence of, 533
Hematocrit: *see* Technique
Hepatoma(s):
———129(P), effect of Nitromin on cells of, 421
incidence of, in HR mice given 4-*o*-tolylazo-*o*-toluidine, 533
incidence of in South African Bantu, 249, 281
metabolism of amino acids in rats bearing, 189
mouse, anaplasia as factor in conversion to ascites form, 1
Heredity: *see* Genetics
L-Histidine-2-C^{14}, metabolism of, protein and nucleic acid relationships in, 189
Hogeboom, George H., obituary, III (Nov.)
Hormones: *see* Adrenal, Corticosteroid, Estrogen

Instrumentation:
cigarette-smoking machine, providing condensates for study, 375
devices for controlling spread of solutions applied to skin, 399
freeze-dry apparatus used in histochemistry and pathology, 49
Isotopes: *see* Tracer studies

Japanese: *see* Statistics

Krebs-2 carcinoma, influence of succinate and 2,4-dinitrophenol on *in vitro* respiratory capacity of, 615

Leukemia(s):
growth of, in guinea pigs and mice, effect of lymphocytic choriomeningitis virus on, 221
lymphocytic, ascites form, growth of following amethopterin administration, 391
mortality, data on geographic distribution in U. S. for 1949–51, 475
mouse, (L1210)
cell variant of, effect of amethopterin on, in presence of infectious agent, 447
Leukemia(s)—Continued
mouse—Continued
effect of combined treatment with amethopterin and 6-mercaptopurine on, 631
management of, with amethopterin, 203
urinary corticosteroids of guinea pigs, effect on excretion by, 213
Liposarcoma, effect on excretion of urinary corticosteroids in guinea pigs, 213
Liver: *see also* Hepatoma
effect of glutamine on growth and metabolism of epithelial cells of, 131
glutathione levels in mice with leukemia following amethopterin treatment, 391
Lymphosarcoma, Murphy rat, action of radioiodinated anti-tumor antibodies in rats bearing, 517

Mammary tumor(s):
daily eosinophil rhythm in mice bearing, 139
histologic analysis of, in mice, 701–801
neoplasia
general characteristics of, 701
early stages of, 713
organoid structure, 755
origins of tumors, 713
responsiveness and progression, 713
secretion, in stages of neoplasia, 783
structure, histologic, factors in determining, 701
Melanoma S91:
influence of succinate and 2,4-dinitrophenol on *in vitro* respiratory capacity of, 615
in vitro resistance to X irradiation, 657
6-Mercaptopurine, combined with amethopterin in treatment of advanced mouse leukemia, 631
Metabolite(s):
urinary
of carcinogen *N*-2-fluorenylacetamide, excreted by rat, 345
separation of, by chromatographic procedure, 363
3-Methylcholanthrene, response of inbred strains of mice to percutaneous application of, 481
Mitosis:
of ascites tumor cells, effect of Nitromin on, 421
studied with digital computer by Monte Carlo methods, 175

Mortality and morbidity: *see* Statistics
Mustards (nitrogen): *see* Nitromin

Navajo: *see* Statistics
Negro (South African): *see* Bantu
Nitromin, effect on mitosis and cytoplasmic volume of two ascites tumors, 421
Nucleic acids, deoxypentose, metabolic stability of, 37

Ovarian tumor transplants in gonadectomized rats, histophysiology of, 541

Pituitary gland, whole, of mouse, implanted in anterior eye chamber, morphology and histochemistry of, 569
Proteins of rat tissues, in binding of *N*-2-fluorenylacetamide, 677

Radioactivity: *see* Tracer studies
Respiratory activity of mouse neoplasms and normal tissue, *in vitro*, influence of succinate and 2,4-dinitrophenol on, 615
Ribonuclease from normal and neoplastic tissue, purification and properties of, 503
Rous sarcoma I: *see* Virus

Sarcoma(s): *see also* Fibrosarcoma, Liposarcoma, Lymphosarcoma
——— 37, enzyme systems of, affected by diphosphopyridine nucleotide, 145
——— 180, amino acid composition of tissues of, 65
cells of, effect of Nitromin on, 421
Rous ——— I, induced by partially purified virus, histogenesis of, 101
Sex, influence on isologous skin grafting, in mice, 35
Skin: *see also* Grafts
carcinogenesis of in mice, dosage factors in, 399, 405
Spleen, protection by homogenates of, against lethal X-ray doses, 435
Statistics:
incidence of hepatoma in Bantu in Johannesburg, 281
review of literature on, 249
Statistics—Continued
mortality
leukemia, data on geographic distribution in U. S. for 1949–51, 475
recorded and expected, with data on cancer, among
Chinese of Hawaii and U. S., 667
Japanese of Hawaii and U. S., 459
Navajo Indians, 77
probability of developing cancer, based on morbidity data, 155
Steroid: *see* Corticosteroid
Succinate, effect on *in vitro* respiration of normal and neoplastic tissue, 615

Technique(s):
antibodies, radioiodinated, preparation of, against Murphy rat lymphosarcoma, 517
chromatography:
separation of cigarette-smoke condensate into fractions by, 375
separation of metabolites of *N*-2-fluorenylacetamide by, 363
digital computer studies of cell multiplication by Monte Carlo methods, 175
freeze-drying of tissue, method and use in histochemistry and pathology, 52
hematocrit method for measurement of cell culture growth, 305
purification of deoxyribonuclease and ribonuclease from normal and neoplastic tissue, procedure for, 503
Therapy: *see* Chemotherapy
Thyroid carcinoma, canine, transplantability of, in mixed-breed puppies, 123
Tissue culture:
serum-free nutrient solution, sustaining growth of strain L (Earle) mouse cells, 315
strain L (Earle) mouse cells, hematocrit measurement of growth in serum-free nutrient solutions, 305
4-*o*-Tolylazo-*o*-toluidine, incidence of hemangioendothelioma and hepatoma in HR mice, following inoculation with, 533
Tracer studies:
carbon, labeled,
L-histidine, metabolism of, in normal and hepatoma-bearing rats, 189
in determination of urinary metabolites of carcinogen, 345
in measurement of tumor growth curves, 37

Tracer studies—Continued
iodine, labeled, in measurement of antibody localization, 517
nitrogen, labeled, in studies of protein binding, 677
Transplantation: *see also* Grafts
canine thyroid carcinoma, carried through 30 generations of mixed-breed puppies, 124
ovarian tumor transplants, histophysiology of, in gonadectomized rats, 541
pituitary gland, whole, of mouse, implanted in anterior eye chamber, 569
tumors in reciprocal hybrids, factors influencing growth and transplantability of, 497
Tumor(s): *see also* Ascites, Carcinoma, Ehrlich ascites, Fibrosarcoma, Glioblastoma, Hepatoma, Krebs-2, Leukemia, Liposarcoma, Lymphosarcoma, Mammary, Melanoma S91, Ovarian, Sarcoma
incidence of, in mice protected with spleen homogenate against lethal X-ray doses, 435
mouse, recovery and identification of lymphocytic choriomeningitis virus from, 233
skin, of mice, induced by carcinogens, 405, 481
Tumor-damaging agents: *see* Acetylpodophyllotoxin-ω-pyridinium chloride, Amethopterin, 6-Mercaptopurine

Uterine horns, unusual neoplastic lesions of, in estrogen-treated mice, 601

Virus:
avian erythroblastosis, dose response of host to, influenced by age and infection site, 91
lymphocytic choriomeningitis (LCM)
leukemia in guinea pigs and mice, affected by, 221
transplantable leukemias, of mice, affected by, 233
Rous sarcoma, partially purified, inducing Rous sarcoma I, 101

X irradiation:
in vitro resistance of melanoma S91 to, 657
protection with spleen homogenate against lethal doses of, 435
thyroid carcinoma, canine, growth of transplants following, 123